

Secut Report sent out ☐
 Noted in the NID File ☐
 Location pinned ☐
 Approval Letter ☐
 Data sent to A, or 10-13-56
 operator ☐
 Pin changed on location map ☐
 Affidavit and Record of A & P ☐
 Water Shut-Off Test ☐
 Gas-Oil Ratio Test ☐
 Well Log Filed ☐

FILE NOTATIONS

Entered In NID File ☒

Entered On S R Sheet ☒

Location Map Pinned ☒

Card Indexed ☒

I W R for State or Fee Land ☐

Checked by Chief ☒

Copy NID to Field Office ☒

Approval Letter ☒

Disapproval Letter ☐

COMPLETION DATA:

Date Well Completed 2-19-58

CW..... WW..... TA.....

GW..... OS..... PA.....

Location Inspected ☐

Bond released ☐

State of Fee Land ☐

LOGS FILED

Diller's Log 2-26-58

Electric Logs (No. 1)

E ☒ L ☐ E-I ☐ GR ☐ GR-N ☐ Misc ☐

Lat ☐ Mi-L ☐ Sonic ☐ Others ☐

460

STATE OF UTAH
OIL AND GAS CONSERVATION COMMISSION
NOTICE OF INTENTION TO DRILL

OIL AND GAS CONSERVATION COMMISSION

June 29th

19 56

In compliance with Rule C-4, notice is hereby given that it is our intention to commence the work of drilling Well No. 1, which is located 1880 ft. from (N) 1240-1880 line and 3920 ft.

from (E) line of Sec. 24, Twp. 2 N, R. 1W, U.S.M. (S) Whiterocks Area
(#) (Meridian) (Field or Unit)

Uintah (county), on or about 1st day of July, 1956.

LAND: Fee and Patented ()
State ()
Lease No. _____

Name of Owner of patent or lease White Eagle Oil Co.Address Tulsa, Oklahoma

Public Domain (X)
Lease No. U-04891

Is location a regular or exception to spacing rule? Exception Has a surety bond been filed? Yes With whom? USGS Area in drilling unit No

(State or Federal)
Elevation of ground above sea level is 7117 grd. ft. All depth measurements taken from top of Kelly B. shing which is 10' ft. above ground.
(Derrick Floor, Rotary Table or Kelley Bushing)

Type of tools to be used Cable & Rotary Proposed drilling depth 3000' ft. Objective formation is Navajo ss.

PROPOSED CASING PROGRAM

Size of Casing Inches A.P.I.	Weight Per Foot	Grade and Type	Amount Ft.	Top In.	Bottom	Cementing Depths
<u>10-5/4"</u>	<u>36#</u>	<u>Welded</u>	<u>150</u>	<u>0"</u>	<u>Surface 150'</u>	<u>Surface 150'</u>

AFFIDAVIT

I hereby certify under the penalty of perjury, that the information contained and statements herein made are to the best of my knowledge and believe, true, correct and complete.

Approved for unorthodox location _____

Date July 5 19 56

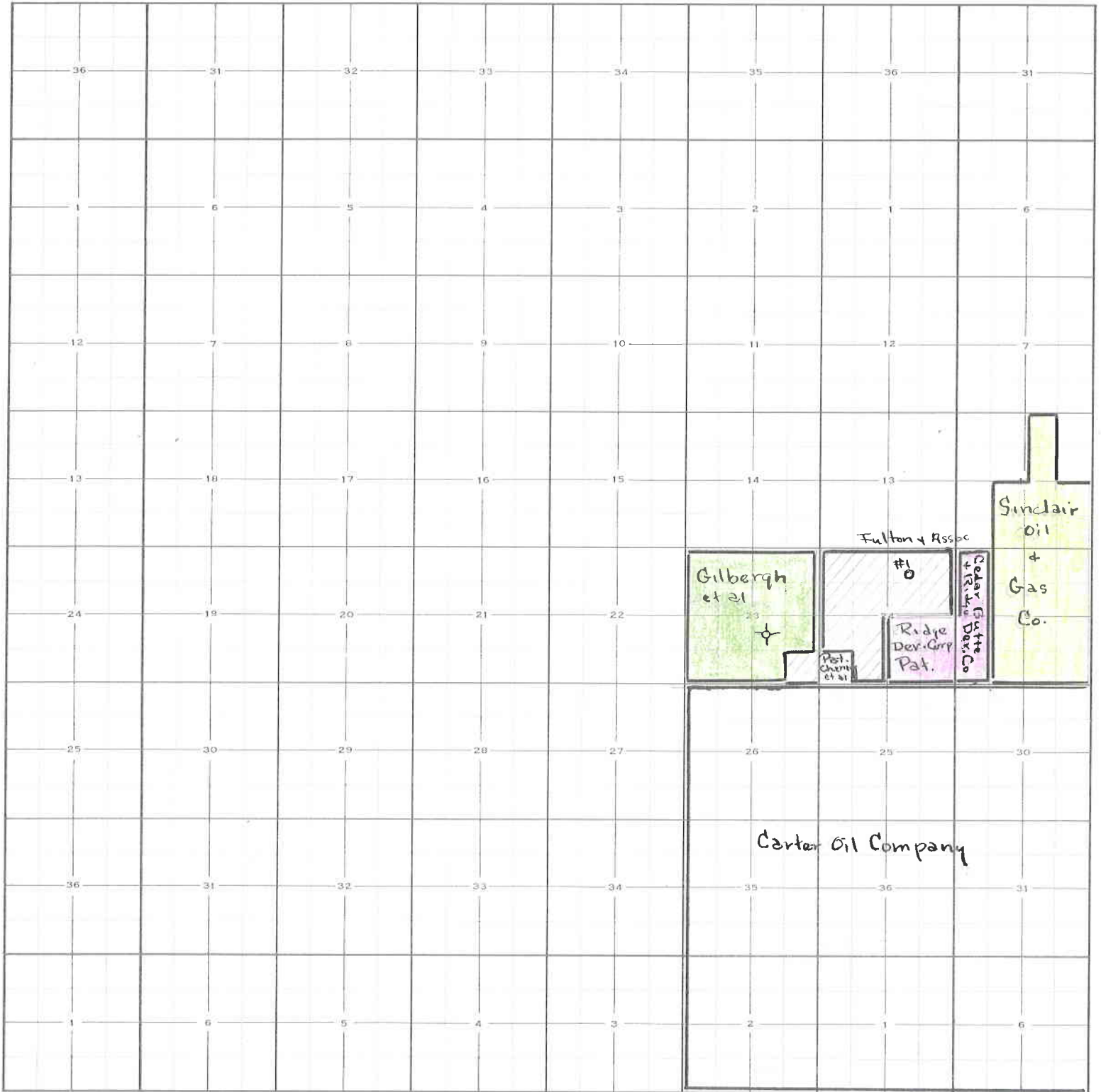
By H. F. SMART
H. F. SMART
Title COMMISSIONER

By R. Van Sandt
Drilling Superintendent
(Title or Position)
Mervin J. Fulton & Associates
Tulare, California
(Company or Operator)
Address _____

Note: Location is an exception to the rule of 500' in view of tremendous topographic differences and to ruggedness of terrain (Alluvial boulders, etc) (On advice of Robert E. Covington, Geological Consultant, Caldwell & Covington, Vernal, Utah.)

INSTRUCTIONS

1. Complete this form in duplicate and mail both copies to the Oil and Gas Conservation Commission, Room 105, Capitol Building, Salt Lake City 14, Utah.
2. A plat or map must be attached to this form showing the location of all leases, property lines, drilling and producing wells within an area of sufficient size so that the Commission may determine whether the location of the well conforms to applicable rules, regulations and orders.
3. Any information required by this form that cannot be furnished at the time said form is submitted must be forwarded to the commission as soon as available.
4. Use back of form for remarks.



TOWNSHIP 2 N RANGE 1 W USM COUNTY Uintah

STATE Utah

REMARKS: ☒ Fulton & Assoc - Farmout from White Eagle Oil Co.

COMPANY

CALDWELL AND COVINGTON
OIL AND URANIUM PROPERTIES
VERNAL, UTAH

ROBERT E. COVINGTON
CRAIG CALDWELL

July 2, 1956

Re: Mervin J. Fulton et al
Whiterocks Area
Uintah County, Utah


State of Utah
Oil and Gas Conservation Commission
State Capital
Salt Lake City, Utah

Gentlemen:

On June 29, Mr. Mervin J. Fulton and associates signed a Notice of Intention to Drill, this well to be located 1100 Feet from the North line and 1980 feet from the East line of Section 24, Township 2 North, Range 1 West, U.S.M., Uintah County, Utah. This location was made on the basis of the fact that it was impossible to locate the well exactly in the center of the 10 acres because of the nature of the surrounding topography and because the geology necessitated locating the well at the point given.

We are enclosing a 4-island township plat showing the ownership of acreage within a 5,000 foot radius of the No. 1 Mervin J. Fulton and associates well which we propose to drill in the Whiterocks Area. I trust this will be satisfactory for your purposes. Thank you for your cooperation.

Very truly yours,


Robert E. Covington, Geologist
CALDWELL & COVINGTON

REC:jj
cc - Mervin J. Fulton
Enclosure

CALDWELL AND COVINGTON
OIL AND URANIUM PROPERTIES
VERNAL, UTAH

ROBERT E. COVINGTON
CRAIG CALDWELL

July 3, 1956

with
1-4-OR

Re: Mervin J. Fulton &
Associates Well
Whiterocks Area
Uintah County, Utah

State of Utah
Oil and Gas Conservation Division
State Capital
Salt Lake City, Utah

Gentlemen:

The reason why the Fulton & Associates No.1 well could not be located in the center of the 40 acres (which would have put the location in the center of the Northwest quarter of the Northeast quarter) is the fact that the topography is such that the location would have been on the top of about 150 feet of boulders and gravels.

From a geologic point of view this would have put the location too far north to have hit the objective sand which is the Navajo formation. The Navajo sand is dipping Southeast at about 74 degrees. Moving the location northward would have meant that we would have gone from the Tertiary formation into the Triassics and would be missing the Navajo entirely.

I trust that this information will satisfy your requirements regarding the location of this well.

Very truly yours,

Robert E. Covington
Robert E. Covington, Geologist
CALDWELL & COVINGTON

REC:jj
VIA AIR MAIL

July 5, 1936

R. Van Sandt
c/o Caldwell & Covington
Oil and Uranium Properties
Vernal, Utah

Dear Sir:

*actual location
1880 1040*

This is to acknowledge receipt of your notice of intention to drill Well No. 1, which is to be located 1100 feet from the north line and 1980 feet from the east line of Section 24, Township 2 North, Range 1 West, T8N, Uintah County, Utah.

Please be advised that insofar as this office is concerned approval to drill said well on said unorthodox location is hereby granted under Rule C-3 (c), General Rules and Regulations, and Rules of Practice and Procedure, Oil and Gas Conservation Commission, State of Utah.

Yours very truly,

CLEON B. FRIGHT
SECRETARY

CBF:cc

cc: Don Russell, Dist. Eng.
USGS, Federal Bldg.
Salt Lake City, Utah

Mervin J. Fulton & Associates
Tulare, California

CALDWELL AND COVINGTON
OIL AND URANIUM PROPERTIES
VERNAL, UTAH

ROBERT E. COVINGTON
CRAIG CALDWELL

October 8, 1956

Re: U-04891
Uintah County, Utah
Whiterocks Area
No. 1 Fulton Well

State of Utah
Room 140 State Capitol Building
Oil & Gas Conservation Commission
Salt Lake City, Utah

Gentlemen:

We would like to notify you regarding the progress of the No. 1 Whiterocks well located in Section 24, Township 2 North-Range 1 West.

Due to the press of time and bad weather in this rugged country we were unable to close our traverse until last week. Because of an instrument error on the original traverse an erroneous location and elevation was made for this well.

The true legal description for this well is as follows:

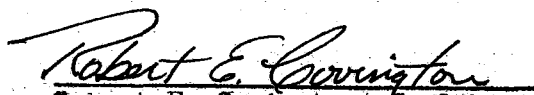
Township 2-North Range 1 West U.S.M.
Section 24 NW $\frac{1}{4}$ -SE $\frac{1}{4}$ -NE $\frac{1}{4}$ (1880 feet from the North line
and 1040 feet from the East line).

The corrected elevation is 7338.3 D.F.V. This well has been drilled to a total depth of 1230 feet. We have been shut down since September 27th but intend to resume operations next week.

If you need a copy of the re-survey on this well I will obtain one from the original map which I sent to Mr. Don Russell, District Engineer U.S.G.S.

This corrected location moved the well from NW $\frac{1}{4}$ -NE $\frac{1}{4}$ to the NW $\frac{1}{4}$ -SE $\frac{1}{4}$ -NE $\frac{1}{4}$.

Very truly yours,


Robert E. Covington, Geologist
CALDWELL & COVINGTON

REC/dh

POOR COPY

UTAH

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

1			

Lease No. **184090**
Unit _____

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL LOGS
NOTICE OF INTENTION TO ABANDON WELL	

Notice of intention to re-commence
drilling after shut-down due to winter

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

May 27

57

19

Well No. **1** is located **1040** ft. from **N** line and **24** ft. from **E** line of sec.

NW-SE-NE
(1/4 Sec. and Sec. No.)

T2N R1W
(Twp.) (Range)

USM

(Meridian) **Utah**

Wildcat

(Field)

Utah

(County or Subdivision)

(State or Territory)

The elevation of the derrick floor above sea level is **7338** ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Last report was 3 December, 1956. Rig was shut down due to weather. Permission for shutting down was approved by U.S.G.S. Moving in cable tool rig to run mud baller test to test for water shut off behind surface casing. Then hole will be balled down to total depth and drilling will be commenced by cable tool drilling. After balling water-mud out of hole, hole will be left standing open for 24 hours to insure adequate shut-off of water.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **Mervin J. Fulton & Associates**

Address **P.O. Box 980**

Tulame, California

By **R. E. Covington, Geologist**

Title **Geologist, Caldwell & Covington**

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION
State Capitol Building
Salt Lake City 14, Utah

Public Domain x
Lease No. U-4890

SUNDRY NOTICES AND REPORTS ON WELLS

Notice of intention To Abandon Well X

July 22, 1957

Well No. 1 is located 1880ft. from N line and 1040 ft. from E. line of sec. 24.

NW-SE-NE	T2N	R1W	USM
(1/4 Sec. and Sec. No.)	(Twp.)	(Range)	(Meridian)
Wildcat	Uintah	Utah	
(Field)	(County or Subdivision)	(State of Territory)	

The elevation of the derrick floor above sea level is 7338 ft.

DETAILS OF WORK

Total depth of well is 1210 ft. 150 feet of 10 3/4 inch, 36 pound surface casing was set. Hole was drilled with cable tools to a depth of 450 feet. From 450 feet to total depth well was drilled with rotary tools. It is hereby requested that permission be granted to abandon this hole. The hole has been filled with very thick rotary mud below the surface casing. It is requested that permission be allowed to fill the bottom of the casing with a cement plug and also to place a cement at the top of the casing. A proper sign showing location, name of well, etc. will be placed on a 4 foot pipe embedded. No water sands were encountered below the surface casing. It is impossible to get below surface casing because cavings have completely filled hole and settled in the heavy drilling mud, and also there is some steel in the bottom of the hole.

Company Mervin J. Fulton & Associates
Address P.O. Box 980
Tulare, California

By Robert E. Covington
Robert E. Covington
Title Consulting Geologist
Vernal, Utah P.O. Box 473

W

CALDWELL AND COVINGTON
OIL AND URANIUM PROPERTIES
VERNAL, UTAH

ROBERT E. COVINGTON
CRAIG CALDWELL

July 22, 1957

re: U.S. Oil & Gas Lease
U-04890
Uintah Co., Utah

Cleone Feight, Secretary
Oil & Gas Conservation Commission
State of Utah
State Capitol Building
Salt Lake City, 14, Utah

Dear Sir:

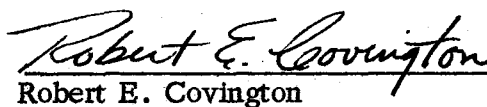
We enclose in duplicate your Form OGCC-1, "Sundry Notices and Reports" on the Mervin J. Fulton & Associates, No.1 Whiterocks well regarding Intention to Abandon. We have received verbal approval on abandonment from Mr. Don Russell of the U.S.G.S already. This hole was drilled to a total depth of 1210 feet and filled with heavy mud up to the surface casing which was set at 150 feet. Since the hole has caved very badly below the surface pipe and we were unable to re-enter the same, and since we encountered no water sands below the casing, Mr. Russell has given us approval from the U.S.G.S. to spot cement plugs at the bottom and the top of the casing for abandonment. May we have your permission to do the same?

Also enclosed are two copies of the same form regarding intent to drill a new well. We would appreciate your approval on this hole. We are moving south 50 feet from the old hole since we were unable to make any progress with the No.1 Whiterocks well.

Thank you for your cooperation. May we hear from you in the near future? We would surely appreciate your prompt permission to proceed.

Very truly yours,

CALDWELL & COVINGTON


Robert E. Covington

Geologist

rec'dg
VIA AIRMAIL
Encl.

P.S.: Please send us about two dozen Sundry Notices as you can see we are out!
Thanks.

July 23, 1957

Caldwell & Covington
Vernal,
Utah

Gentlemen:

This is to acknowledge receipt of your notice of intention to abandon Well No. Whiterocks 1, which is located 1880 feet from the north line and 1040 feet from the east line of Section 24, Township 2 North, Range 1 West, UEN, Uintah County, Utah.

Please be advised that insofar as this office is concerned, approval to abandon said well is hereby granted.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FREIGHT
SECRETARY

CBF:en

cc: Don Russell, Dist. Eng.
USGS, Federal Building
Salt Lake City, Utah

Mervin J. Fulton & Assoc.
P. O. Box 980
Tulare, California

December 5, 1957

Mervin J. Fulton & Associates
c/o Caldwell & Covington
Vernal, Utah

Gentlemen:

This letter is to advise you that the well log for Well No. Whitersocks 1, located in Section 24, Township 2 North, Range 1 West, UEM, Uintah County, Utah, has not as yet been filed with this office as required by our rules and regulations.

Please complete the enclosed Forms OGCG-3, Log of Oil or Gas Well, in duplicate, and forward them to this office as soon as possible.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FREIGHT
SECRETARY

CBF:en

*Not In
12-14-58*

February 18, 1958

Caldwell & Covington
P. O. Box 473
Vernal, Utah

Re: Well No. Mervin J. Fulton &
Associates Whiterecks 1,
NW 8th NE Sec. 24, T4N 2R
1 West, UEM, Uintah County

Gentlemen:

Please complete the enclosed Forms OGCC-3, Log of Oil or Gas Well, in duplicate, for the above mentioned well, which was plugged and abandoned on or about August 1, 1957.

The well log for said well was due 90 days after the date the well was abandoned, therefore, it would be greatly appreciated if you will file these forms as soon as possible.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

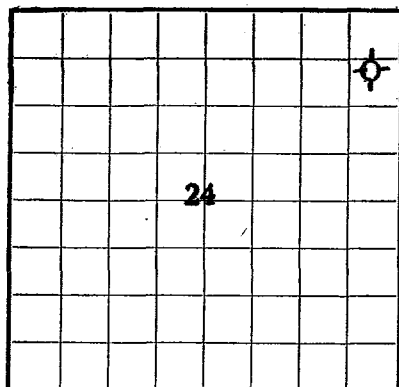
CLEON B. FREIGHT
SECRETARY

CHF:en

Encl.

STATE OF UTAH OIL & GAS CONSERVATION COMMISSION

State Capitol Building
Salt Lake City 14, Utah



LOCATE WELL CORRECTLY

To be kept Confidential until _____
(Not to exceed 4 months after filing date)

LOG OF OIL OR GAS WELL

Operating Company Mervin J. Fulton & Assoc. Address P. O. Box 980, Tulare, California
Lease or Tract: Utah-04891 (Federal) Field Wildcat State Utah
Well No. 1 Sec. 24 T. 2 N R. 1 W Meridian U.S.M. County Uintah
Location 1880 ft. ^[N]_[S] of N Line and 1040 ft. ^[E]_[W] of W Line of Sec. 24 Elevation 7338 D F
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed

Robert E. Covington

Date February 19, 1958Title Geologist

The summary on this page is for the condition of the well at above date.

Commenced drilling July 5, 19 56 Finished drilling October 7, 19 57

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 455 to 960 (Asphalt) No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 90 to 100 No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
10 3/4"	36#			150'	Texas				Surface String

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4"	150'	50			

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
 Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 450' feet to 1210 feet, and from _____ feet to _____ feet

Cable tools were used from Surface feet to 450 feet, and from _____ feet to _____ feet

DATES

_____, 19____ Put to producing _____, 19____

The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____% emulsion; _____% water; and _____% sediment. Gravity, °Bé. _____

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

Darwin Campbell _____, Driller _____, Driller

Partain Drilling Co. _____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
(See Attached Sample Log For Description)			
Surface	135' ^A	135	Surface Boulders
135'	450'	315	Duchesne River Formation
450'	1210' ^{3/}	760	Navajo Formation

[OVER]

FEB 21 1958

MERVIN J. FULTON & ASSOCIATES #1 GOVT.

NW $\frac{1}{4}$ -SE $\frac{1}{4}$ NE $\frac{1}{4}$
SECTION 24,
TOWNSHIP 2 NORTH.
RANGE 1 WEST.
El. 7330 D.F.

R. E. Covington, Well Geologist

Well began in surface boulders and same entered the Duchense River formation at 135 feet:

Samples begin at 135 feet: (Casing (10 3/4) set at 150 ft.)

- | | | |
|------|-----|---|
| 135- | 140 | Shale, red sandy, bentonitic. |
| 140- | 145 | As above. |
| 145- | 150 | As above with some gray-green bentonite with boitite. |
| 150- | 155 | As above with increased in bentonite. |
| 155- | 160 | Bentonite, gray-green. |
| 160- | 165 | As above. |
| 165- | 170 | As above with sandstone, coarse grain, increased. |
| 170- | 175 | As above, with some coarse, brown, quartzitic. |
| 175- | 180 | As above. |
| 180- | 185 | As above with some red siltstone. |
| 185- | 190 | Siltstone, red and gray, very bentonitic. |
| 190- | 195 | Siltstone, red, gray, green, bentonitic, shaly. |
| 195- | 200 | As above with biotite mica. |
| 200- | 205 | Sandstone, fine to coarse, brown, silty and dirty, with some bentonite shale and shaly siltstone. |

POOR COPY

- 205- 210 Bentonite, gray-green, with biotite flakes.
- 210- 215 Bentonite, white, as above
- 215- 220 As above, with increased in sandstone, fine grain, dirty and silty.
- 220- 225 As above.
- 225- 230 Siltstone red-green, with some mottled shale, becoming sandy in part.
- 230- 235 Sandstone, red and green shaly, bentonitic with some large, rounded, frosted quartz grains, 1-3 millimeter. Trace brown, dense, crystalline limestone.
- 235- 240 Siltstone, red bentonitic, with some sandstone, as above. Asphalt pellets, common, trace calcite, trace orange chert.
- 240- 245 Siltstone, as above 50%, and shale, very bentonitic, waxy, emerald green, with biotite flakes.
- 245- 250 Conglomerate, with 3-5 millimeter rounded to sub-rounded quartz grains, with limestone, white, chalky and limestone, brown, densely crystalline.
- 250- 255 Sandstone, medium to coarse grain, with some large quartz pebbles, wet, clean.
- 255- 260 Sandstone, as above. Grains are subrounded, frosted, very friable.
- 260- 265 Conglomerate with some very fine quartz grains, and quartz pebbles, 3-5 millimeter.
- 265- 270 Sandstone, medium to coarse grain, very friable.
- 270- 275 Sandstone, as above. Looks wet.
- 275- 285 As above, with sandstone, quartzitic, red-brown, calcite, common. Orange chert, common.
- 285- 290 Sandstone brown, fine grain limey, with some white, dense limestone, and some sandstone brown, friable, fine to coarse, rounded to subrounded, with some milky quartz and orange chert.

PAGE THREE

- 290- 295 Sandstone, with some limestone, as above. Trace shale, green and red.
- 295- 300 Limestone, purple, white, sucrosic, with some sandstone as above.
- 300- 305 Shale, red, with some sandstone, bentonitic.
- 305- 310 Limestone, purple, white, gray, dense to sandy and sandstone, brown to tan, medium to coarse, with tan chert and frosted white quartz grains.
- 310- 315 Limestone, gray, dense, lithographic and limestone, purple and white, sandy (50%). Sandstone, medium grain, reddish-tan, calcite, hard, tight. Some chert, gray and white.
- 315- 320 As above.
- 320- 330 Sandstone, medium to fine grain, reddish-tan, hard, tight, calcite, some chert, green and white.
- 330- 360 Sandstone, medium to fine grain, reddish-tan calcite, some chert and shales.
- 360- 365 Siltstone, reddish-brown, sandy.
- 365- 370 Limestone, white, finely crystalline to sucrosic, with some sandstone, coarse grain. Chert, gray, dense, common.
- 370- 375 Conglomerate, silty, with quartz grains, 1-2 millimeter rounded, frosted, with some clay stone, red and siltstone, red.
- 375- 380 Limestone, dark gray, dense and limestone, white, sucrosic.
- 380- 385 Limestone, as above, 50% and shale, red-green bentonitic.
- 385- 395 Limestone, as above.
- 395- 405 Shale, red and green, with some gray-green bentonite.
- 405- 415 Sandstone, buff, quartzitic, some calcite, fine grain, tight, sharp with some dark gray, dense, limestone.
- 415- 420 Sandstone, red-brown, clayey, coarse grain, calcite, with some fine grain sandstone.
- 420- 430 Sandstone, fine to coarse grain, red-brown, with some silty, fine to medium grain sandstone.

- 430- 450 Sandstone, green-white, fine to coarse grain, frosted, with some dark gray and pink sub-rounded to rounded grains, calcareous.
- 450- 455 Sandstone, white medium grain, frosted to clear, sub-rounded to rounded, calcareous, salt taste?
(Moving out cable tool rig, moving in rotary.)
- 455- 460 Sandstone, white, medium to coarse grain, calcareous, with heavy oil staining, brown fluorescence, excellent, cut, excellent odor, Cut is yellow under ultra-violet light. Sandstone is 30% stained, with tar-like oil.
- 460- 470 Limestone, gray-green, dolomitic, with tar staining. Some limestone, brown to buff and some sandstone, as above. Staining up to 25% of sample.
- 470- 480 Sandstone, white, fine grain, well sorted, friable, with some coarse grain sandstone. Sandstone has spotty tar-oil staining with cut and fluorescence and excellent odor, as above. Trace sandstone, fine grain, red-brown to tan, hard with interlocked grains, grading into sandy limestone. The coarse quartz grains are pitted and frosted and rounded.
- 480- 490 Sandstone, fine grain, gray, with silty to shaly, with tar saturation. Sandstone is highly bentonitic.
- 490- 500 Shale, gray, bentonitic, sandy, with some fine grain sandstone and with small amount tar saturation. Spotty.
- 500- 510 Sandstone, green, medium to coarse grain, hard, tight and limestone, gray, finely crystalline with some sandstone, medium fine grain, with white binder, with spotty tar saturation, tar globules, common. Some claystone, red, with biotite and claystone, green.
- 510- 520 Sandstone, fine grain, well saturated with black, heavy oil. Excellent odor. Excellent cut. Some sandstone coarse grain, hard, tight. Trace sandstone, white, medium grain, tight, not saturated or spottily saturated. Some sandstone, medium grain, calcareous, grading into soft, white, sandy limestone.
- 520- 530 Sandstone, greenish-white, fine grain, soft, well sorted. Very calcareous, spottily saturated. Good odor. Trace pyrite.

PAGE FIVE

- 530- 540 Limestone, medium gray, finely crystalline, sharp and sandstone, fine grain, greenish-white, with saturation varying from 0 to 100%. Trace limestone, tan, sandy and limestone, gray, ~~crypto~~-crystalline. Pyrite very common. Trace mudstone, red. Trace claystone, light greenish-gray, sandy, with large quartz grains.
- 544- 564 Core #1. Cored 20.0 feet. Recovered 20.0 feet. sandstone, medium grain, friable, with tar saturation. Dips? are 72 degrees. Fracture planes are 45 degrees. Fracture planes are well saturated, with fractures as above. Good odor and good cut in acetone. Some tarry oil in fractures and few white spotty sandstone streaks slightly saturated. Bottom of core is more clayey, less evenly saturated.
- 577- 590 Sandstone, fine to medium grain, well rounded, frosted grains, with tar saturation amounting to 75%. Limestone, gray-green, sandy, rare (caving).
- 590- 610 Sandstone, as above, with saturation increasing to 90%.
- 610- 630 Sandstone, as above, 50%, limestone, buff, finely crystalline, and sandstone, green calcareous, with pyrite, rare, grading into limestone, green silty with some medium coarse sands one grains. A few very coarse (2-3 millimeter) sub-rounded, semi-opaque, quartz crystals. Some mudstone, buff and green.
- 630- 640 (Cavings - 60%, due to trip), Limestone, tan, finely crystalline, gray, dense and gray with some green mottling, with some brown sandy limestone and limey sandstone. Sandstone, green, limey, very pyritic, with some tar staining, fine to medium grain. Some sandstone, white with tar staining. Pyrite, very common. Asphalt saturation amounts to 25%. Trace sandstone, white, calcareous, pyritic, with white, lime binder. Asphaltic sandstone forms asphalt pellets. Tight, hard.
- Top Entrance ?
640- 650 Sandstone, white, calcareous, fine to coarse grain, with white limestone binder, with tar saturation amounting to 20%. Some limestone, brown, granular and limestone gray-white, colitic fossiliferous.

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- 640- 650 Trace limestone, brown, sandy. Tar saturation is
(Cont'd) interbedded, giving laminated appearance. Pyrite,
common. Mudstone, pale red, rare (Cavings?). Lime-
stone, pale buff to green-gray, clayey to silty,
common. Trace limestone, dense, gray-white, chalky.
- 650- 660 Sandstone, fine grain, white, with tarry saturation
amounting to 80%.
- 660- 670 Sandstone, fine to coarse grain, with white caly
binder. Tar saturation amounts to 25%. Some clay-
stone, gray.
- 670- 680 Sandstone, fine grain, with white clay binder,
bentonitic, balls up, with 10% tar saturation.
- 680- 690 Sandstone, as above with some sandstone, fine grain,
with green clay binder. Trace limestone, white
asphaltic. Sandstone is slightly pyritic. Trace
siltstone, with black grains, very calcareous.
Bentonitic shale, gray, common.
- 690- 704 Sandstone, as above.
- 705- 713 Core #3 - Recovered 8.0 feet. Sandstone, fine grain, hard,
tight, calcareous, with some interbedded tarry asphalt,
highly cross-bedded, with dips averaging 62 degrees. Top
of core is fairly well saturated. Bottom of core is lean.
Some white clay galls.

(Well shut down awaiting orders)

- 713- 720 Sandstone, fine grain, with tar saturation, good, 75%
saturated. Siltstone, red, very calcareous, and claystone,
gray and buff, waxy, calcareous, common. Trace lime-
stone, white, finely sucrosic. Trace sandstone, brownish-
red, fine grain.
- 720- 730 Sandstone, fine grain to very coarse, very friable, with some
shale, green and grey, soft, bentonitic. Sandstone is sat-
urated 25% with brown to black tarry oil. Trace gypsum, white.
Trace limestone, brown, hard, very finely crystalline.
Trace apple-green shale.

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- 730- 740 Sandstone, fine to coarse grain, very friable, silty, grains are frosted, rounded to sub-rounded, with some pale blue bentonite, with biotite flecks in bentonite. Sandstone is 20% saturated.
- 740- 750 Sandstone, white, fine grain, with white clay and white limestone, and limestone, white, very finely crystalline and tan, sandy, with some light grey, finely sucrosic limestone, sharp. Spotty tar saturated.
- 750- 760 Sandstone, as above, with increased in pyrite and white sandstone. Bentonite, blue, as above, very common.
- 760- 770 Sandstone, white, slightly calcareous, hard, tight, slightly pyritic, with some grey bentonitic sandstone with biotite. Pale blue bentonite, common.
- 770- 780 Claystone, tan and brown, bentonitic, with some pale blue and green bentonite. Limestone, tan and brown, very finely crystalline, dense. Some sandstone, white, calcareous, with black flecks. Trace of sandstone, medium grain, with white lime cement and interstitial tarry asphalt.
- 780- 790 Claystone, as above, with some shale, red, slightly calcareous. Trace pyrite.
- 790- 800 No sample
- 800- 810 Sandstone, white, fine to coarse grain, with sub-rounded to rounded, frosted grains with tar pellets and interstitial tar, common, with few soft tarry splotches. Tarry asphalt does not coat grains of sand. Siltstone, flesh-pink, common. Some sandstone, white, as above.
- 810- 820 Sandstone, as above, with increased in tar saturation. Siltstone, flesh-colored pink, common. Some white sandstone, as above.
- 820- 830 Sandstone, as above, with some sandstone, coarse grain, with orange grains, rounded with white lime binder and pieces of green shale. Trace chert, milky-white, sharp.
- 830- 840 Siltstone, pale red, bentonitic, and siltstone, tan, shaly, with some sandstone, as above. Trace limestone, milky-white, vuggy, hard. Sandstone, fine to coarse grain with interstitial tar amounts to 10% of sample.

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- 840- 850 Bentonite, flesh-colored and pale green, biotitic, calcareous, with some sandstone, fine to coarse grain, with white cement and interstitial tar amounting to 25% total saturation. Some pale red siltstone.
- 850- 890 Bentonite, as above, with increase in asphaltic sandstone to 50% of sample. Tar does not coat grains.
- 890- 915 CORE NO. 4: Cored interval 890-915, recovered 4.0': recovered 1.0' of sandstone, fine to coarse grain, with lean tarry asphalt saturation, fair odor; recovered 1.0' mudstone, soft, bentonitic, red (probably lost 11.0' of mudstone, red): recovered 2.0' in bottom of core, sandstone, fine grain, with lean tarry asphalt saturation, poor to fair odor.
- 915- 920 Sandstone, fine grain, with interstitial tar and with some free tar. Some bentonite, pale blue, with biotite; some tan and grey bentonite. Siltstone, red, sandy, rare.
- 920- 930 Siltstone, brownish-red, and bentonite, as above. Sandstone, as above, decreases to 10%. Trace limestone, crystalline, white.
- 930- 940 As above, with some free, tarry oil.
- 950- 960 Sandstone, fine grain, tarry, with white lime binder, well saturated with interstitial tar; some tar coats the grains. Limestone, white, finely crystalline, rare.
- Top Carmel?
- 960- 970 Limestone, white, sandy, with some red siltstone. Trace limestone, light and dark grey, cherty to lithographic. Pyrite, common. Bentonite, pale blue, common. Trace reddish-brown siltstone.
- 970- 980 Siltstone, brown and red, with some shale, blue, bentonitic with biotite.
- 980- 990 Siltstone, brown and red, as above. Limestone, red, sucrosic, common to very common. Trace shale, olive-green, waxy.
- 990- 1000 Siltstone, red, and shale, green waxy, with some limestone, white sand. Some sandstone, fine to coarse grain, with white lime binder and flecks of interstitial tar. Pyrite, common. Trace calcite.

- 100- 1010 Siltstone, red, with some blue bentonite.
- 1010- 1020 Sandstone, fine grain, with white lime cement and interstitial tar. Siltstone, red, biotitic, bentonitic, common. Some black, greasy tar. Pyrite, common.
- 1020- 1030 Siltstone, as above, with decrease in sandstone. Trace white bentonite.
- 1030- 1040 Siltstone, as above, with limestone, grey, dense, sharp, common.
- 1040- 1065 No sample.
- 1065- 1075 Core No. 5: Cored 10.0'. Recovered 0.5', sandstone very fine grain to fine grain, well sorted, with frosted, sub-rounded grains with white clay binder, noncalcareous. Piece of core, 1 inch thick consisting of white sandstone, as above, with no hard tar flecks. Rest of core consists of sandstone, as above, varying from a salt and pepper appearance to black, depending on amount of tar. Dip of beds seems to be vertical to 70 degrees. (Cross bedding?) Some white clay. Sandstone is very friable. Clay may represent gouge.
- 1075- 1085 ^{Gypsum?} Bentonite, whitish-grey, sandy, with some siltstone, red. Trace limestone, buff, shaly.
- 1085- 1093 Sandstone, coarse grain, well sorted, with white clay binder, pyritic. Trace limestone, tan-white finely crystalline, with some pyrite finely sucrosic limestone. Some siltstone, red and grey.
- 1093- 1100 ^{Gypsum?} Bentonite, white, sandy, with trace tar in bentonitic sandstone.
- 1100- 1110 Sandstone, white, medium grain, with some tar, interstitial, bentonitic.
- 1110- 1120 ^{Gypsum?} Bentonite, white, sandy, clayey with trace red siltstone.
- 1120- 1130 ^{Carmel?} Limestone grey, dense, pinkish brown, finely sucrosic and bentonitic, green and grey, with biotite mica. Some red siltstone.
- 1130- 1140 Siltstone, grey, re, bentonitic, sandy.

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- 1140- 1150 Limestone, grey, finely crystalline and limestone, pyritic, finely sucrosic, with some red and grey siltstone. Some bentonite, green with bitite.
- 1150- 1160 Siltstone, red, with some limestone, as above. Pyrite, rare bentonite pale blue, micaceous.
- 1160- 1170 Limestone, grey, finely crystalline and limestone pinkish-red and sandy, grey. Chert, grey, sharp, common. Pyrite, common. Some orange chert, sharp. Siltstone, red, Common. Some free tar.
- 1170- 1180 Limestone grey, dense and limestone, pinkish-red sandy. Trace pale-green shale.
- 1180- 1190 Limestone buff, crystalline sucrosic, sharp, hard with some grey and white limestone. Bentonite, pale blue, biotitic.
- 1190- 1200 Limestone, buff, sandy and white chalky with some bentonitic siltstone.
- 1200- 1210 Bentonite, grain, grey and pink, with some limestone, brown, sandy to dense and trace sandstone, white calcareous, fine to coarse grain, ~~bitonic~~, silty. Trace dolomitic, black.
- 7 1220- 1230 Sandstone, fine to coarse grain, calcareous, silty, very friable, well rounded grains.